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(56) Documents Cited:
US 6332158 B1 US 20020027915 A1
"Data Communications, Computer
Networks and Open Systems", 4th
edition, Fred Halsall, 1996,
Addison-Wesley, ISBN 0-201-42293-X
RFC 1035; Available at:
<http://ietfreport.isoc.org/rfc/rfc1035.txt>
"DNS and BIND", 3rd Edition, Paul Albitz &
Cricket Liu, September 1998. Available at:
<http://www.oreilly.com/catalog/dns3/chapter/ch02.html>
Exploring the Domain Name Space, by
Kristin Windbigler, 24 Jan 1997. Available
at:
http://webmonkey.wired.com/webmonkey/geektalk/97/03/index4a_page2.html?tw=backend
"VeriSign Site Finder", Mark Kusters, Matt
Larson, NANOG, 20 October 2003.
Available on the Internet at:
<http://www.nanog.org/mtg-0310/pdf/kusters.pdf> . See particularly:
page 4.
ICANN Advisory Concerning Demand to
Remove VeriSign's Wildcard, 03 October
2003. Available on the internet at:
<http://www.icann.org/announcements/advisory-03oct03.htm> . See for example, the first
paragraph.
IAB Commentary: Architectural Concerns
on the use of Wildcards, 19 September

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(continued on next page)

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GB 2 413 742 B - continuation

- (56) **2003. Available on the internet at:**
<http://www.iab.org/documents/docs/2003-09-20-dns-wildcards.html>.
"Clarifying the Role of Wild Card Domains in the Domain Name System"; B Halley, E Lewis; IETF
STANDARD-WORKING-DRAFT, INTERNET ENGINEERING TASK FORCE, IETF, CH;
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INSPEC, Internet: Google
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CLAIMS:

1. A method for resolving an unknown address request in a computer system comprising the steps of:

receiving a name at a computer system with a request for an address corresponding to that name;

comparing the name with a database of names to detect matching information in the database; and

if no matching information is detected, sending a referral response in answer to the request

receiving the referral response to the request

performing a sequence of tests on the request including, but not limited to, determining whether the start of a request matches a known string of characters; and

sending a synthesized address response to the request.

2. A method according to claim 1 in which the sequence of tests includes the step of determining the type of the request.

3. A method according to claim 1 or claim 2 in which the synthesized address response comprises an Internet Protocol address.

4. A method according to claim 1 or claim 2 or claim 3 in which the request is made using a domain name system and the response is generated using the process substantially herein described.

5. Apparatus for resolving an unknown address request in a computer system comprising:

means for receiving a name at a computer system with a request for an address corresponding to that name;

means for comparing the name with a database of names to detect matching information in the database; and

means in which if no matching information is detected, sending a referral response in answer to the request

means for receiving the referral response to the request

means for performing a sequence of tests on the request including, but not limited to, determining whether the start of a request matches a known string of characters; and

means for sending a synthesized address response to the request.

6. A method for resolving an unknown address request in a computer system substantially as herein described.

7. Apparatus for resolving an unknown address request in a computer system substantially as herein described.

Granted UK Patent GB 2413742 B

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Title: Computer Address resolution

Documents Cited:

US 6332158 B1 US 20020027915 A1

“Data Communications, Computer Networks and Open Systems”, 4th edition, Fred Halsall, 1996, Addison-Wesley, ISBN 0-201-42293-X RFC 1035; Available at:
<http://ietfreport.isoc.org/rfc/rfc1035.txt>

“DNS and BIND”, 3rd Edition, Paul Albitz & Cricket Liu, September 1998. Available at:
<http://www.oreilly.com/catalog/dns3/chapter/ch02.html>

Exploring the Domain Name Space, by Kristin Windbigler, 24 Jan 1997. Available at:
http://webmonkey.wired.com/webmonkey/geektalk/97/03/index4a_page2.html?tw=backend

“VeriSign Site Finder”, Mark Kusters, Malt Larson, NANOG, 20 October 2003. Available on the Internet at: <http://www.nanog.org/mtg-0310/pdf/kusters.pdf>

ICANN Advisory Concerning Demand to Remove VeriSign’s Wildcard, 03 October 2003. Available on the internet at: <http://www.icann.org/announcements/advisory-03oct03.htm>

IAB Commentary: Architectural Concerns on the use of wildcards, 19 September 2003. Available on the internet at: <http://www.iab.org/documents/docs/2003-09-20-dns-wildcards.html>

“Clarifying the Role of Wild Card Domains in the Domain Name System”; B Halley, E Lewis; IETF STANDARD-WORKING-DRAFT, INTERNET ENGINEERING TASK FORCE, IETd CH; 2003-09-00; Vol: dnsext; Nr: 2; VN: 45003; IRN: ISSN 0000-0004; XP015017708.

Field of Search:

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TXTWO1, XPIETF,

INSPEC, Internet: Google

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URL source tree:

<http://ietfreport.isoc.org/rfc/rfc1035.txt>

<http://www.oreilly.com/catalog/dns3/chapter/ch02.html>

http://webmonkey.wired.com/webmonkey/geektalk/97/03/index4a_page2.html?tw=backend

<http://www.nanog.org/mtg-0310/pdf/kusters.pdf>

<http://www.icann.org/announcements/advisory-03oct03.htm>

<http://www.iab.org/documents/docs/2003-09-20-dns-wildcards.html>